UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,407	05/01/2001	Philip M. Walker	10005046-1	4008

7590   06/28/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER
CHO, HONG SOL

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/846,407	WALKER ET AL.
	Examiner	Art Unit	
	Hong Cho	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 March 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>01 May 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The following is a response to the amendments filed on 03/17/2005.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form

the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Strahm et al

(U.S 5732214), hereinafter referred to as Strahm.

        Re claims 1, 15, and 24, Strahm discloses Control Element (CE, figure 2, element

206, *source agent*) sending the packet, encrypted in tunnel mode (*the tunnel being*

configured by said source agent, paragraph [0032], lines 1-2) and Classifying Forwarding

Element (CFE, figure 2, element 202, *an endpoint of a tunnel*) classifying the packet by

checking if the packet is received from the same traffic stream or the security Association

(SA) as previously received packets Classifying Forwarding Element (CFE, figure 2,

element 202, *an endpoint of a tunnel*) (*authentication logic configured to receive packets*

sent from a source agent to an endpoint of a tunnel and to determine whether a SA of a

packet received corresponds to said source agent, paragraph [0032], lines 5-11).

Strahm discloses routing Internet Protocol security (IPsec) traffic based on the

classification parameter (abstract, *making a routing decision for each authenticated*

packet that is constrained based on the SA of the authenticated packet). Classification

parameters include IPsec Security Parameter Index (SPI) information that is uniquely

associated with a SA. Strahm discloses the CFE classifying the traffic it receives from

the network for transmission to a destination, wherein this classifying involves load

balancing and route optimization (paragraphs [0008] and [0009]). *(selecting a routing*

destination for each authenticated packet, and routing the packet based on said routing

decision, abstract, lines 1-5).

Re claim 2, Strahm discloses selecting the routing destination based on routing

decision (paragraph [0009], lines 1-2).

Re claims 3, 16, and 25, Strahm discloses Decrypting Forwarding Element (DFE)

decrypting the received packet using the encryption or keys included in the SA

(decapsulate received packets while SA of the packet is preserved, paragraph [0036],

lines 1-5) and forwarding the packet to its next stop *(contents of a payload of an*

authentication packet are routed to the selected routing destination, paragraph [0031],

lines 1-9).

Re claims 4 and 17, Strahm discloses processing Internet Protocol security (IPsec)

traffic (abstract).

Re claim 5, Strahm discloses public IPsec protocol (paragraph [0002]).

Re claim 6, Strahm discloses communication with private network (paragraph

[0027]).

Re claims 7, 8, 18 and 19, Strahm discloses routing or forwarding a packet to layer 3 device, router (paragraph [0031], lines 4-9).

Re claims 9, 10, 20 and 21, Strahm discloses forwarding a packet to layer 2 device, switch (paragraph [0031], lines 4-9).

Re claims 11 and 22, Strahm discloses a switch forwarding network traffic based on information included in the second layer of OSI networking model and discloses sending a packet in a tunnel mode through a virtual private network gateway.

Re claims 12 and 23, Strahm discloses a data layer link device forwarding network traffic based on information included in the second layer of OSI networking model (paragraph [0024], lines 9-12).

Re claims 13 and 14, Strahm discloses making routing decision based on Security Parameter Index (SPI, *authentication ID*) associated with a SA (*making routing decision without regard to the contents of a payload of the packet*, figure 1b; paragraph [0010], lines 1-7).

Re claims 26, 28 and 29, Strahm discloses receiving a packet at a tunnel endpoint, authenticating the packet (paragraph [0032], lines 5-11), preserving a SA of the packet as an authentication ID and based on the classification parameter (abstract), making routing decision of routing Internet Protocol security (IPsec) traffic by looking up the authentication ID in a table to determine a destination IP address to which the packet is to be routed (*making routing decision based on Security Parameter Index (SPI, authentication ID) associated with a SA* (paragraph [0010], lines 1-7).

Re claim 27, Strahm discloses making routing decision without regard to an internal destination address contained within a payload of the packet (packets are sent in transport mode to other network device that is not the packet's ultimate destination, paragraph [0019]).

Re claim 30, it is inherent in IP that a packet addressed to 255.255.255.255 is used to indicate that an IP packet is an IP broadcast (broadcasting a packet to all IP addresses found in the table that pertain to a given destination).

Response to Arguments

4.   Applicant's arguments filed on 3/17/05 have been fully considered but they are not persuasive.

On page 12 the Applicant argues that Strahm's CFE does not comprise decision logic configured to make a routing decision for each authenticated packet that is constrained based on the security association of the authenticated packet. The Examiner respectfully disagrees. Strahm discloses the CFE classifying the traffic it receives from the network for transmission to a destination, wherein this classifying involves load balancing and route optimization that involves making a routing decision for each authenticated packet (paragraph [0009]). Therefore, the Examiner concludes that the rejection of claims 1-25 stands rejected.
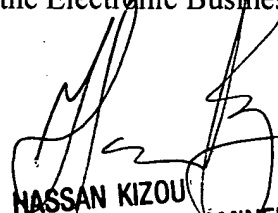
Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

- US 2001/0009025 to Ahonen discloses secure communication method in VPN

- US 2002/0062344 to Ylonen et al. discloses secure tunneling of data between virtual

     routers

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

     If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-3088.

     Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
6/2/2005

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600